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## Partnering in Great Plains Regional GAP

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# Partnering in Great Plains Regional GAP

## **Abstract**

Partnering within the Great Plains states has been very important to the success of the Great Plains Regional GAP project. Over \$3.5 million have been received in monetary and in-kind support from partners for the direct funding of basic layers of gap analysis as well as spin-offs of the GAP projects important to partners in the Great Plains (Table 1). Successes in basic gap analysis efforts would not have been possible without the direct and financial support of our many partners in the Great Plains. In addition to the financial aspects of partnering, contributions of partners have demonstrated their interest in our work and the value of creating high-quality, state-of-the-art products. Our partnering support, both in direct and in-kind financial aspects, also has stimulated several spin-off projects within the basic GAP effort, thereby facilitating future partnering with various agencies and organizations.

## **Disciplines**

Biodiversity | Environmental Monitoring | Geographic Information Sciences | Natural Resources and Conservation | Physical and Environmental Geography

## **Comments**

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## **Authors**

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## **Partnering in Great Plains Regional GAP**

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### **Partnerships and Matching Funds from the Great Plains States**

Partnering within the Great Plains states has been very important to the success of the Great Plains Regional GAP project. Over \$3.5 million have been received in monetary and in-kind support from partners for the direct funding of basic layers of gap analysis as well as spin-offs of the GAP projects important to partners in the Great Plains (Table 1). Successes in basic gap analysis efforts would not have been possible without the direct and financial support of our many partners in the Great Plains. In addition to the financial aspects of partnering, contributions of partners have demonstrated their interest in our work and the value of creating high-quality, state-of-the-art products. Our partnering support, both in direct and in-kind financial aspects, also has stimulated several spin-off projects within the basic GAP effort, thereby facilitating future partnering with various agencies and organizations.

### **Background on the Formation of the Great Plains Regional GAP Group**

The Great Plains Regional GAP project originated as a two-pronged effort; one effort was focused on land cover and the other on vertebrate modeling. The desire to produce a seamless land cover map within EPA-Region 7 brought together the four states of the region (Iowa, Kansas, Missouri, and Nebraska) in 1996 to form the MidAmerica Remote Sensing Consortium to work on this common initiative. The Consortium expanded to include South Dakota in 1997. In contrast, the vertebrate group was brought about partially by the recognition that the ranges of many vertebrate species crossed state boundaries. Also, significant to the formation of the vertebrate group were repeated observations of the continuing successful cooperation of the land cover group. Further, the spatial arrangement (north-south) of the region's major grassland types (tallgrass, mixed-grass, and shortgrass prairies) made it highly likely that many vertebrate species would be shared among the Great Plains states. Individuals within the vertebrate group indicated their interest in pursuing common goals at the National GAP meeting in Reston, Virginia, in August 1997.

### **Great Plains Regional GAP Meetings and Partnerships**

The first formal meeting of the Great Plains Regional GAP group was hosted by the KS-GAP project at the University of Kansas in Lawrence in October 1997. States participating were Iowa, Kansas, Missouri, Nebraska, Oklahoma, and South Dakota. North Dakota joined the

regional group in spring 1998. Since that time, the group has held semi-annual meetings in the spring and fall. Oklahoma and Missouri discontinued participation in the regional group in spring 1998 and spring 1999, respectively.

The spring and fall meetings have facilitated numerous interactions between the land cover and vertebrate modeling groups in addition to providing time to discuss the “nuts and bolts” of GAP tasks in separate breakout sessions. Joint sessions have included six-month progress reports for each state project as well as discussions of funding opportunities and successes (Table 2). In breakout sessions, the land cover group has discussed the challenges of distinguishing among grassland types. They also have worked to design a common regional protocol for conducting accuracy assessment of each state’s land cover map. Likewise, the vertebrate group has considered issues that are related to development of vertebrate distribution maps and wildlife habitat relationship models. At the spring 1999 meeting, KS-GAP demonstrated a Microsoft Access database expert system that they developed to assist modeling habitats of vertebrates in Kansas. Subsequently, the five states decided to use the same database expert system with some modifications. This decision was made to ensure that all vertebrate species and vegetative alliances occurring in the Great Plains states would be included in the database, which would allow vertebrates to be modeled across the region.

Our last regional meeting occurred on 24-25 October 2000 at EROS Data Center. Our focus has now moved from intrastate land cover classifications to interstate evaluations of land cover classes (cross-walks) and how state modifications in vertebrate mapping will impact regional vertebrate models. Although these questions eventually surface in all GAP projects, regional meetings have allowed GAP project personnel to anticipate problems and to have potential solutions or recommendations at hand. Furthermore, discussions have begun to address rules for development and cross-walking of state stewardship layers, which will allow cross-walking of stewardship categories and processing of a regional stewardship map.

Breakout sessions also fostered discussions about types of in-kind support in each state that partners were providing for land cover mapping, vertebrate modeling, and stewardship mapping. For example, in-kind support has included waiver of indirect costs by universities on grants and contracts funded to support producing land cover and vertebrate maps, Landsat Thematic Mapper scenes, and metadata on museum voucher specimens (Table 3). In-kind support has been very valuable to each state both in terms of services provided as well as monetary values associated with these services (Table 4). Although we have placed a dollar value on in-kind services and support, some of these estimates for in-kind support undoubtedly are undervalued. For example, museum records of specimens useful to GAP projects have been valued at \$1 per record, but total costs would be in the millions of dollars were these specimens to be collected today.

Table 1. Total support (monetary and in-kind) of the Great Plains states over GAP I funding period.

<b>State</b>	<b>Monetary</b>	<b>In-kind</b>	<b>Total</b>
Iowa	\$142,000	\$193,000	\$335,000
Kansas	\$810,402	\$800,349	\$1,610,751
Nebraska	\$620,017	\$99,000	\$719,017
North Dakota		\$800,500	\$800,500
South Dakota	\$20,000	\$142,000	\$162,000
<b>Total</b>	<b>\$1,592,419</b>	<b>\$2,034,849</b>	<b>\$3,627,268</b>

Table 2. Financial partners (excluding funding by the Biological Resources Division) of the Great Plains states over GAP I funding period.

<b>State</b>	<b>Partner</b>	<b>\$\$ of Support</b>
Iowa	Iowa Department of Natural Resources	\$42,000
	U.S. Environmental Protection Agency	\$100,000
Kansas	Kansas Department of Wildlife and Parks	\$266,041
	Kansas Water Office (GIS State Policy Board)	\$178,023
	Kansas Army National Guard	\$304,238
	U.S. Environmental Protection Agency	\$45,000
	U.S. National Park Service	\$10,000
	USDA Natural Resources Conservation Service	\$7,100
Nebraska	Cooperative Hydrology Study (COHYST)	\$ 87,000
	U.S.D.I. Bureau of Reclamation	\$250,765
	U.S. Environmental Protection Agency	\$ 45,000
	USDA Forest Service	\$227,252
	Nebraska Game and Parks Commission	\$ 10,000
North Dakota		
South Dakota	U.S. Fish and Wildlife Service	\$20,000

Table 3. Nature of in-kind support that the Great Plains states have received from universities, museums, federal and state agencies, nongovernmental organizations, and individuals during GAP I funding period.

<b>State</b>	<b>In-Kind Support or Services</b>
Iowa	Waiver of indirect costs; Phase I land cover map; research and field biologists time; mapping research and assistance; mammal records; faculty and staff research and expertise; intern
Kansas	Waiver of indirect costs and lab fees; 44 TM images; >55,000 vertebrate records; mid-size and large mammal survey
Nebraska	Expert review, technical advice, and observational data; assistance in training field crews, conducting field work, conducting land cover map accuracy assessments; accessing voucher specimens
North Dakota	TM images and land cover classifications; vectors for refuges, waterfowl production areas, and easements; existing digital land cover, vegetation and vertebrate databases, and land ownership data; databases and vertebrate records in non-electronic format
South Dakota	Waiver of indirect costs; office space; computers; equipment; TM images

Table 4. In-kind partners of the Great Plains states over GAP I funding period and estimated value of services or support provided.

State	Partner	Value of In-Kind
Iowa	Iowa State University	\$100,000
	Iowa Department of Natural Resources	\$53,000
	Drake University	\$5,000
	Iowa Association of County Conservation Boards	\$5,000
	John Bowles, Mammal Research	\$25,000
	Iowa Natural Heritage Foundation	\$1,000
	Iowa Nature Conservancy	\$4,000
Kansas	Kansas State University (Office of Research & Sponsored Programs)	\$108,188
	Biological Resources Division	\$106,744
	Kansas Department of Wildlife & Parks	\$133,339
	Kansas Army National Guard	
	University of Kansas	\$119,914
	Center for Research Inc.	\$118,564
	Kansas Biological Survey including KARS	\$133,000
	National Aeronautics & Space Administration	\$4,000
	Kansas State University-Konza Prairie LTER Program	\$33,000
	Museum of Natural History, University of Kansas	\$21,600
	Sternberg Museum of Natural History, Fort Hays State University	\$22,000
	Kansas Department of Wildlife and Parks	
Nebraska	Nebraska Game and Parks Commission	\$15,000
	Nebraska Natural Heritage Program	\$15,000
	USDA Natural Resources Conservation Service	\$40,500
	Nebraska State Museum	\$18,500
	University of Nebraska-Nebraska Research Initiative	\$10,000
North Dakota	U.S. Fish & Wildlife Service	\$100,000
	Ducks Unlimited	\$100,000
	U.S.D.I. Northern Prairie Wildlife Research Center	\$100,000
	U.S.D.I. Bureau of Reclamation	\$20,000
	U.S.D.I. Bureau of Land Management	\$20,000
	U.S.D.I. National Park Service	\$50,000
	U.S.D.I. Bureau of Indian Affairs	\$20,000
	USDA Natural Resources Conservation Service	\$15,000
	USDA Forest Service	\$50,000
	U.S. Army Corps of Engineers	\$20,000
	North Dakota Natural Heritage Program	\$50,000
	North Dakota Geological Survey	\$20,000
	North Dakota Game and Fish Department	\$10,000
	North Dakota Agricultural Statistical Service	\$50,000
	North Dakota Department of Transportation	\$50,000
	North Dakota State Land Department	\$75,000
	North Dakota Public Service Commission	\$500
	North Dakota State University	\$5,000
	University of North Dakota	\$5,000
	3 Affiliated Tribes	\$40,000
South Dakota	South Dakota State University	\$135,000
	EROS	\$7,000